REMARKS

The Examiner indicates that claims 1-20 are pending in the instant application, claims 15-20 have been withdrawn from consideration and that claims 1-14 are rejected. Applicants respectfully point out that claim 3 was canceled in a preliminary amendment and in response to the Restriction Requirement filed October 2, 2002. Therefore, claims 1, 2 and 4-20 are actually pending in the instant application and claims 1, 2 and 4-14 are thus assumed to be rejected. Claims 11 and 15-20 have been canceled. Claim 1 has been amended. No new matter has been added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Election/Restriction

The Restriction Requirement placing claims 1-14 into Group I and claims 15-20 into Group II has been deemed proper and made Final. Accordingly, Applicants have canceled without prejudice claims 15-20, reserving the right to file a continuing application on the canceled subject matter.

II. Sequence Disclosure

Applicants are filing herewith a corrected paper and computer copy of the sequence listing as requested.

III. Rejection of Claims Under 35 U.S.C. 102

Claims 1, 2 and 11 has been rejected under 35 U.S.C. 102(a) as being anticipated by Schlegel et al. (WO 01/42467). The Examiner suggests that this reference discloses a nucleic acid molecule that is at least 90% homologous to human macrophage inflammatory protein 3-alpha and the inhibition of this gene with antisense. Applicants respectfully traverse this rejection.

Schlegel et al. disclose and claim an isolated nucleic acid molecule which is at least 90% homologous to human macrophage inflammatory protein 3-alpha or a fragment or complement thereof, which can hybridize under conditions of moderate or high stringency, as well as use of an antisense oligonucleotide complementary to a polynucleotide corresponding to this gene for treatment of cervical cancer. Applicant has canceled claim 11 and amended the remaining claims to recite that the antisense compounds of the instant invention are targeted to specific regions of the

nucleic acid molecule encoding macrophage inflammatory protein 3-alpha of SEQ ID NO: 3. Support for these amendments can be found throughout the specification as filed but in particular at pages 103-106. In order to anticipate an invention the reference cited must teach each and every limitation of the claims (MPEP 2131). Clearly, the cited reference cannot anticipate the invention of the amended claims which are antisense compounds targeted to specific regions of macrophage inflammatory protein 3-alpha (SEQ ID NO: 3), regions that are not taught by the cited reference. Withdrawal of this rejection is respectfully requested.

Claims 1, 2 and 11 have been rejected under 35 U.S.C. 102(b) as being anticipated by Hromas (US Patent 6,096,300). The Examiner suggests that this patent discloses a human macrophage inflammatory protein 3-alpha that is identical to SEQ ID NO: 3 and use of antisense polynucleotides. Applicants respectfully traverse this rejection.

Hromas discloses and claims the human macrophage inflammatory protein 3-alpha DNA and protein sequence. Also disclosed is the use of antisense polynucleotides to this gene in general. No specific antisense compounds are taught or suggested, nor are regions within the sequence of this gene that could be successfully

targeted with antisense. Clearly, the cited reference cannot anticipate the invention of the amended claims which are antisense compounds targeted to specific regions of macrophage inflammatory protein 3-alpha of SEQ ID NO: 3, regions that are not taught by the cited reference. Withdrawal of this rejection is respectfully requested.

IV. Rejection of Claims Under 35 U.S.C. 103(a)

Claims 1, 2 and 4-14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Schlegel et al. (WO 01/42467) and Hromas (US Patent 6,096,300), and further in view of Baracchini et al. (US Patent 5,801,154) and Fritz et al. (1997). The Examiner suggests it would have been *prima facie* obvious for one of ordinary skill to target and inhibit expression of macrophage inflammatory protein 3-alpha because the prior art has taught antisense oligonucleotides complementary to this gene can inhibit expression of the gene (Schlegel et al. and Hromas), while one of skill would have been motivated by the teaching in the art of the critical role for this gene in regulation of mononuclear chemotaxis (Hromas). The Examiner suggests one of skill would have had an expectation of success based on the teachings of the cited references. Finally,

the motivation to modify antisense is provided for by the teaching of Baracchini et al. and Fritz et al. Applicants respectfully traverse this rejection.

At the outset, Applicants have amended the claims, as discussed *supra*, to recite specific regions within the sequence of macrophage inflammatory protein 3-alpha for targeting of antisense compounds, regions that are not taught in the cited references. As discussed in detail *supra*, none of the primary references teach or suggest the claimed antisense compounds. Therefore, when considered either alone or when combined, these primary references fail to teach the limitations of the amended claims.

The secondary references cited fail to overcome the deficiencies in teaching of these primary references.

The '154 patent teaches modification to antisense oligonucleotides in general as a way to enhance activity. However, this general discussion of modified oligonucleotides does not teach or suggest use of antisense compounds of any type to target macrophage inflammatory protein 3-alpha and the successful inhibition of expression using antisense.

Fritz et al. (1997) disclose cationic polystyrene nanoparticles as carrier systems for antisense compounds in

general. This paper, however, does not teach or suggest use of antisense compounds of any type to target the human macrophage inflammatory protein 3-alpha, and the successful inhibition of expression using antisense.

To establish a *prima facie* case of obviousness, three basic criteria must be met (MPEP 2143). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art must teach or suggest all claim limitations. The amended claims, which recite specific regions within the sequence of human macrophage inflammatory protein 3-alpha that can be successfully targeted with antisense and result in inhibition of the expression of the gene, are not taught or suggested by any of the references individually or when combined. Therefore, the limitations of the claims as amended clearly are not taught or suggested by the combination of prior art references, nor is any expectation of successful use of such antisense compounds provided by the combination of prior art. It is only with the specification in hand that one of skill would understand that these specific

regions of the gene could be successfully targeted with antisense compounds and result in inhibition of gene expression. Thus, the combination of prior art cited cannot render the instant claimed invention obvious. Withdrawal of this rejection is therefore respectfully requested.

V. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

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